

ASSIGNMENT

We, Mark R. Prausnitz of 417 West Howard Avenue, Decatur, Georgia 30030, Jin Liu of 1087 Westshire Place, Apartment 9, Atlanta, Georgia 30318, and Thomas N. Lewis of 500 N.E. 70th Street, Apartment 103, Seattle, Washington 98115, in consideration of Ten Dollars and other valuable consideration paid to us by Georgia Tech Research Corporation, a corporation of Georgia, having its principal place of business at 400 Tenth Street, Centennial Research Building, Atlanta, Georgia 30332-0415, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said Georgia Tech Research Corporation, its successors and assigns, the entire interest for the United States of America and its territories and all foreign countries and jurisdictions, including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in "ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS" described in U.S. Serial No. 09/229,226 filed January 12, 1999, by Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis, in the United States Patent and Trademark Office, which claims priority to U.S. provisional application Serial No. 60/071,240 filed January 12, 1998, and U.S. provisional application Serial No. 60/085,304 filed May 13, 1998, in the U.S. Patent and Trademark Office, and in all Letters Patent of the United States and its territories and all foreign countries and jurisdictions which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuation, continuation-in-part, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and its territories and in all other foreign countries and jurisdictions to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

"ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS"

By: Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

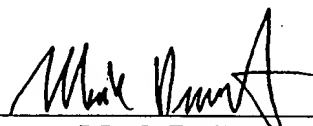
U.S.S.N. 09/229,226

Filed: January 12, 1999

ASSIGNMENT

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 8th day of February, 1999.



Mark R. Prausnitz

State of Georgia)

County of DeKalb) ss.

Then personally appeared the above named Mark R. Prausnitz and acknowledged the foregoing instrument to be his free act and deed, before me, this

8 day of February, 1999.



Notary Public

Notary Public, DeKalb County, Georgia.
My Commission Expires Feb. 16, 2002.

My Commission expires: _____

"ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS"

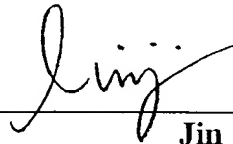
By: Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

U.S.S.N. 09/229,226

Filed: January 12, 1999

ASSIGNMENT

WITNESS my hand and seal this 3rd day of March, 1999.



Jin Liu

State of Georgia)

County of DeKalb) ss.

Then personally appeared the above named Jin Liu and acknowledged the foregoing instrument to be his free act and deed, before me, this 3rd day of March, 1999.



Notary Public

My Commission expires: _____

Notary Public, DeKalb County, Georgia.
My Commission Expires Feb. 16, 2002.

"ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS"

By: Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

U.S.S.N. 09/229,226

Filed: January 12, 1999

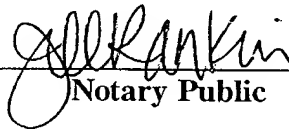
ASSIGNMENT

WITNESS my hand and seal this 8th day of March, 1999.

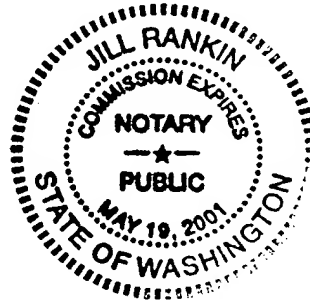

Thomas N. Lewis

State of Washington)
County of Shohomish) ss.

Then personally appeared the above named Thomas N. Lewis and acknowledged the foregoing instrument to be his free act and deed, before me, this 8th day of March, 1999.


Notary Public

My Commission expires: 5-19-01





CERTIFICATE UNDER 37 C.F.R. § 3.73(b)

Applicant Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

Application No.: 09/229,226 Filed: January 12, 1999

For: ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS

Georgia Tech Research Corporation a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplement sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

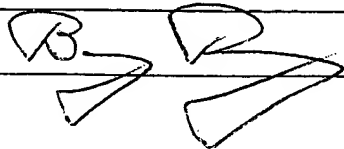
The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

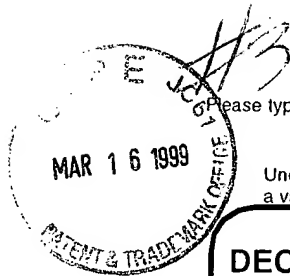
I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and believe are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date : 3/8/99

Name : Barry Rosenberg

Title : Director, Technology Licensing

Signature : 



Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (12-97)
Approved for use through 9/30/00. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input type="checkbox"/> Declaration Submitted with Initial Filing OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	GTRC 1957
	First Named Inventor	Mark R. Prausnitz
	COMPLETE IF KNOWN	
	Application Number	09 / 229,226
	Filing Date	January 12, 1999
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS

the specification of which
☐ is attached hereto
OR
☒ was filed on (MM/DD/YYYY) **January 12, 1999** as United States Application Number or PCT International Application Number **09/229,226** and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

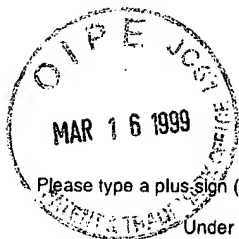
I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)
60/071,240	January 12, 1998
60/085,304	May 13, 1998

☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box →



PTO/SB/01 (12-97)
Approved for use through 9/30/00. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Customer Number

OR

☒ Registered practitioner(s) name/registration number listed below

Place Customer Number Bar Code Label here

Name	Registration Number	Name	Registration Number
Patrea L. Pabst	31,284		
Collen A. Beard	38,824		
Robert A. Hodges	41,074		
Kevin W. King	42,737		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number or Bar Code Label

OR ☒ Correspondence address below

Name	Patrea L. Pabst				
Address	Arnall Golden & Gregory, LLP				
Address	2800 One Atlantic Center, 1201 West Peachtree Street				
City	Atlanta	State	GA	ZIP	30309-3450
Country	United States	Telephone	(404)873-8794	Fax	(404)873-8795

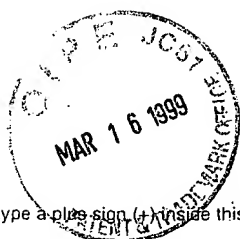
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])		Family Name or Surname	
Mark R.		Prausnitz	
Inventor's Signature	Date		2/2/99
Residence: City	Atlanta	State	GA
Country	US	Citizenship	US
Post Office Address	1765 Peachtree Street, No. D-4 417 West Howard Avenue 1/1/2/99		
Post Office Address	Decatur 1/1/2/99 30030 1/1/2/99		
City	Atlanta	State	GA
ZIP	30309	Country	US

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto



Please type a plus sign (+) inside this box → ☐

PTO/SB/02A (3-97)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

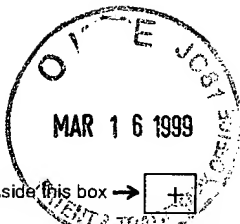
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page 1 of 1

Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Jin				Liu			
Inventor's Signature				Date	March 3, 99		
Residence: City	Atlanta	State	GA	Country	US	Citizenship	US
Post Office Address	1087 Westshire Place, Apartment #9						
Post Office Address							
City	Atlanta	State	GA	ZIP	30318	Country	US
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Thomas N.				Lewis			
Inventor's Signature				Date			
Residence: City	Seattle	State	WA	Country	US	Citizenship	US
Post Office Address	500 N.E. 70th Street, Apartment 103						
Post Office Address							
City	Seattle	State	WA	ZIP	98115	Country	US
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature				Date			
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

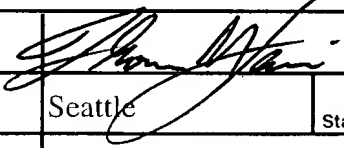


Please type a plus sign (+) inside this box → ☒

PTO/SB/02A (3-97)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet Page <u>1</u> of <u>1</u>
--------------------	---

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Jin				Liu			
Inventor's Signature						Date	
Residence: City	Atlanta	State	GA	Country	US	Citizenship	US
Post Office Address	1087 Westshire Place, Apartment #9						
Post Office Address							
City	Atlanta	State	GA	ZIP	30318	Country	US
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Thomas N.				Lewis			
Inventor's Signature						Date	3/8/99
Residence: City	Seattle	State	WA	Country	US	Citizenship	US
Post Office Address	500 N.E. 70th Street, Apartment 103						
Post Office Address							
City	Seattle	State	WA	ZIP	98115	Country	US
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

Serial No.: 09/229,226

Filed: January 12, 1999

For: *ASSESSMENT AND CONTROL OF ACOUSTIC TISSUE EFFECTS*

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 C.F.R. §§ 1.9(f) and 1.27(d)) - NONPROFIT ORGANIZATION

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF ORGANIZATION: Georgia Tech Research Corporation

ADDRESS OF ORGANIZATION: 400 Tenth Street
Centennial Research Building
Atlanta, Georgia 30332-0415

TYPE OF ORGANIZATION:

- ☐ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
- ☐ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE
(26 USC 501(a) and 501(c)(3))
- ☒ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE
OF STATE OF THE UNITED STATES OF AMERICA
- ☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE
SERVICE CODE (26 USC 501(a) and 501(c)(3) IF LOCATED
IN THE UNITED STATES OF AMERICA
- ☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL
UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA
IF LOCATED IN THE UNITED STATES OF AMERICA

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 C.F.R. § 1.9(e) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code with regard to the invention entitled "*Assessment and Control of Acoustic Tissue Effects*" by Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis, described in

"Assessment and Control of Acoustic Tissue Effects"

By: Mark R. Prausnitz, Jin Liu, and Thomas N. Lewis

U.S.S.N.: 09/229,226

Filed: January 12, 1999

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS

☐ the specification filed herewith.

☒ application serial no. 09/229,226, filed January 12, 1999.

☐ patent no. _____, issued _____

I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above-identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e). *NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 C.F.R. § 1.27).

NAME _____

ADDRESS: _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORG.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 C.F.R. § 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Barry Rosenberg
Director, Technology Licensing

TITLE OF PERSON OTHER THAN OWNER: _____

ADDRESS OF PERSON SIGNING: 400 Tenth Street, Atlanta, GA 30


SIGNATURE

3/8/99
DATE